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AUTHOR Rife, Frank N.
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ABSTRACT

The effectiveness of students' modeling teacher behaviors as a means of bringing about desirable classroom decorum and skill achievement is discussed within the context of physical education classes. (JD)

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EMPHASIZING TEACHER BEHAVIOR AS AN EDUCATIONAL TOOL

Frank N. Rife
The University of Massachusetts
Amherst, MA 01003

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Education has placed emphasis on many variables in the schools such as facilities, equipment and curriculum, but an additional aspect has received a great deal of research attention over the last decade. This attention concerns the effects of teacher behavior upon the academic and social behavior of students.

This psychological concept is termed vicarious reinforcement, but is more commonly called modeling. Modeling is basically the process of an observer acquiring another person's behavior as a result of perceiving that person as successful and being reinforced for what they do.

Modeling has been used to change a variety of academic and social behaviors such as children's play patterns (Marshall & Hahn, 1967), student-teacher behaviors, (Rife, 1973), moral judgment orientations (Bandura & McDonald, 1963) and innovative and novel behaviors (Bandura, Ross & Ross, 1963). Ringer (1973) trained a fourth-grade teacher in the use of tokens and verbal reinforcement by an experienced "token helper" who modeled the procedures in the classroom. This procedure decreased the disruptive behavior of 10 pupils. When the token helper withdrew from the classroom, the teacher managed the token system and maintained disruptive behavior at lower than baseline levels. Bondy and Erickson (1976) compared the effects of a token reinforcement system, a Trainer-Model procedure, and a combination of the two for increasing the rate of questioning in the classes of four retarded children. The modeling procedure had only minimal effects upon the rate of question-asking, while both the Model plus Token and the Token groups showed significant performance increases. The only significant difference between the Model plus Token and the Token groups was a faster rate of increase early in the first training periods for the Model plus Token group. This difference suggests a facilitory effect of modeling procedures on reinforcement contingencies. The thrust of the modeling research strongly suggests that modeling cannot be left to a random approach but is more effective when applied in a systematic manner.

The first step in the modeling procedure is to have a clear and defined goal of the behavior students are to acquire. Cooperation in a gymnastics class can be better defined as the number of times a student "spots" another while working a particular piece of equipment.

The second step is to define specific behaviors or actions which will lead to a target behavior. Students who have to rotate as spotters or have to spot before they can perform a skill have a much higher probability of increasing their spotting behaviors than students allowed to talk to other students, or allowed to move through a skill without also having to help others perform that skill.

The next step is the crucial one of selecting a model to present. Bandura (1969) suggests that a model be (a) successful, and (b) similar to the students observing the model. Being successful does not mean necessarily that the model be an expert or a high-level competitor. The reinforcement the model receives, either from their actions or a teacher's comments, can deem a model successful in the eyes of an observer. Similarity to the observers can be either a peer (Bandura & Menlove, 1968) or an expert performer (Grusec & Mischel, 1966).

Despite the type of model used, it is important that students progress from simple to more complex types of behavior. To present a total move to a novice can be confusing (Bandura, 1969) and it is crucial to have an expert model demonstrate slowly, or in the case of film loops, have slow motion viewing available.

Another modeling consideration is to allow for practice time once the model has been presented. The teacher must make every effort to provide adequate space, time, and equipment for student practice. Equally important is that student practice be given feedback and reinforcement if the modeling procedure is to be effective.

A final consideration espoused by Goodwin and Coates (1976) is for practice outside the classroom. If outside-the-classroom experiences are not deemed successful by students, the teacher may have to remodel the target behaviors in question. In physical education, an example could be to encourage students to participate in an intramural or varsity sport as a result of the modeled behavior they acquired in a physical education class.

A recent study on modeling (Rife, 1977) concerned the acquisition of evaluation behaviors by three randomly selected students from a physical education major's volleyball skills class. The study was conducted in a fall and spring semester of 14 weeks each. Some 40 students were evaluated over 31 performance items during each semester. The class policy regarding evaluation consisted of having students evaluate their peers once they had first successfully passed the skill themselves. The criteria for each skill was explicit and performance success was a yes, not-yet format of achievement. If the student failed the format, they practiced and returned to attempt the skill again. With no modeling intervention by the instructor, there was very little exhibition of peer evaluation behaviors. The entire evaluation process took 11 weeks to complete in the fall semester.

During the experimental semester in the spring, three randomly selected students were given a modeling intervention by the instructor that consisted of demonstrating the skill, explaining the testing situation, reviewing the performance criteria, and emphasizing the cues and discriminative stimuli associated with the correct response. Intervention schedules and reliability sessions all conformed to the procedures of the single-subject research design of applied behavior analysis (Hersen and Barlow, 1976).

The effects of the modeling intervention demonstrated increases in the evaluation behaviors of the three student subjects (See Figure 1).

A corresponding result was a reduction in the total amount of time necessary to completely evaluate the performance skills of the entire class (See Figure 2).

This "pyramid effect" of modeling behaviors for evaluation is termed "internal proctoring" regardless of whether the evaluation information is modeled or presented in verbal or written form. Training peers to evaluate peers has been show to be effective (Sherman, 1971) yet presents some anxiety behaviors for teachers concerning the notion that students may not adhere to performance criteria when evaluating their friends.

A class contingency can be made to reduce such anxiety. A class policy reserving the right to evaluate, by the same criteria, any skill a student has marked as evaluated, can reduce instances of "peers taking care of peers". In many cases, the majority of major students are glad to have the opportunity to practice some evaluation skills and do so in a professional manner.

In summary, a remark should be made concerning the utilization of the modeling principle. Several research studies (Bandura & Menlove, 1968; Kiser, 1969; and O'Conner, 1969) have suggested that the teacher does not have to be the model in order for students to acquire certain skills. Teacher modeling should be encouraged as a positive and supporting factor of "the hidden curriculum." Being skilled has never been mentioned as detrimental for good teaching, but being skilled is not the only requirement. Being a competent teacher/model can suggest to students that being skilled means a game can lead to more success and more fun. It can suggest to the student, "I enjoy this game, this activity is a part of my life." The teacher should be a doer, and demonstrate that activity is a part of their lifestyle. This message will not occur from the teacher who just sits and merely talks about physical activity.

Physical educators and coaches should be strongly urged to utilize the modeling concept for effecting changes in the skill and social behaviors of their students and players. It should be applied in a direct and systematic manner when planning any learning sequence. There is no time like the present for teachers and coaches to become the best model available.

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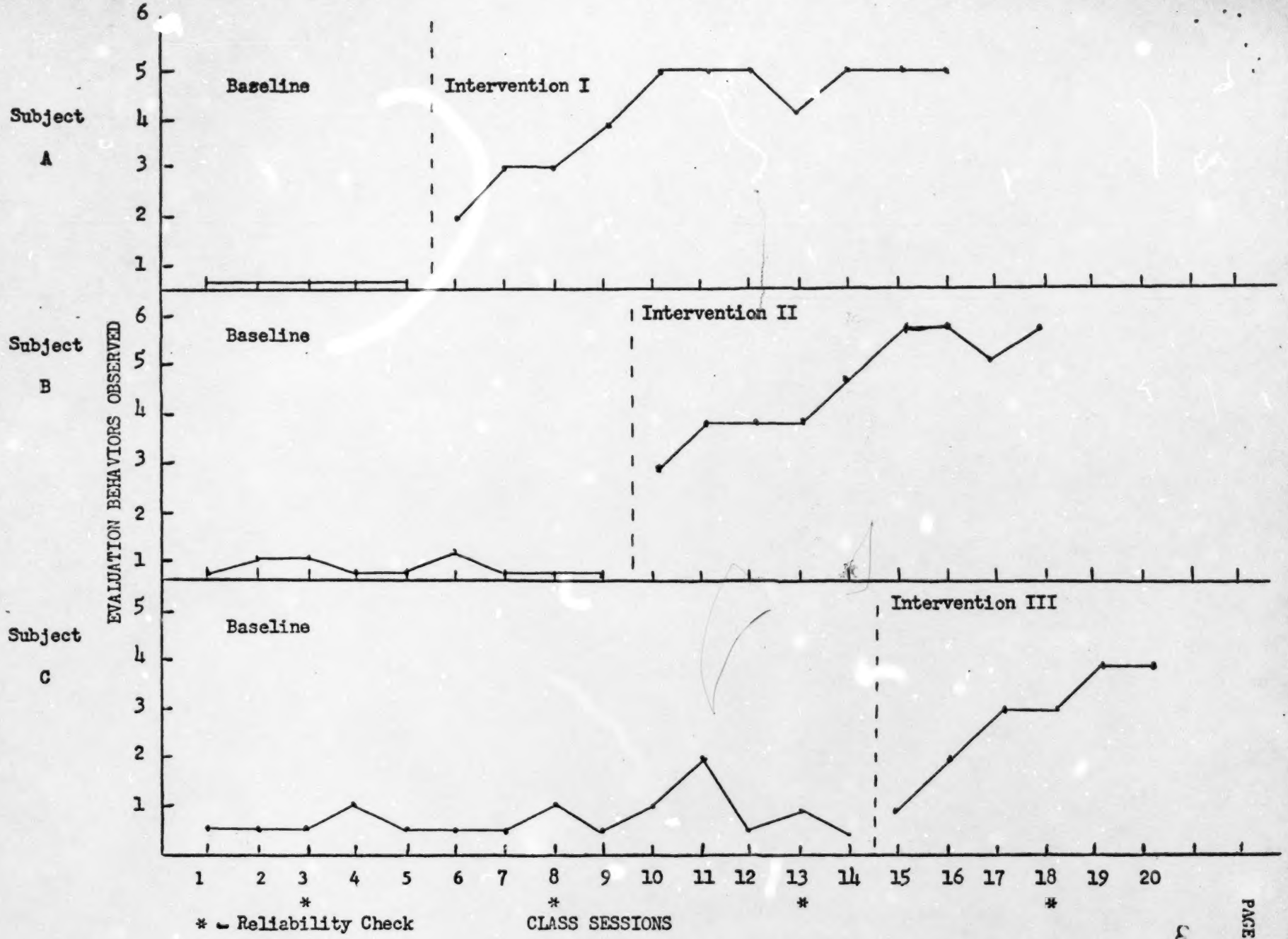
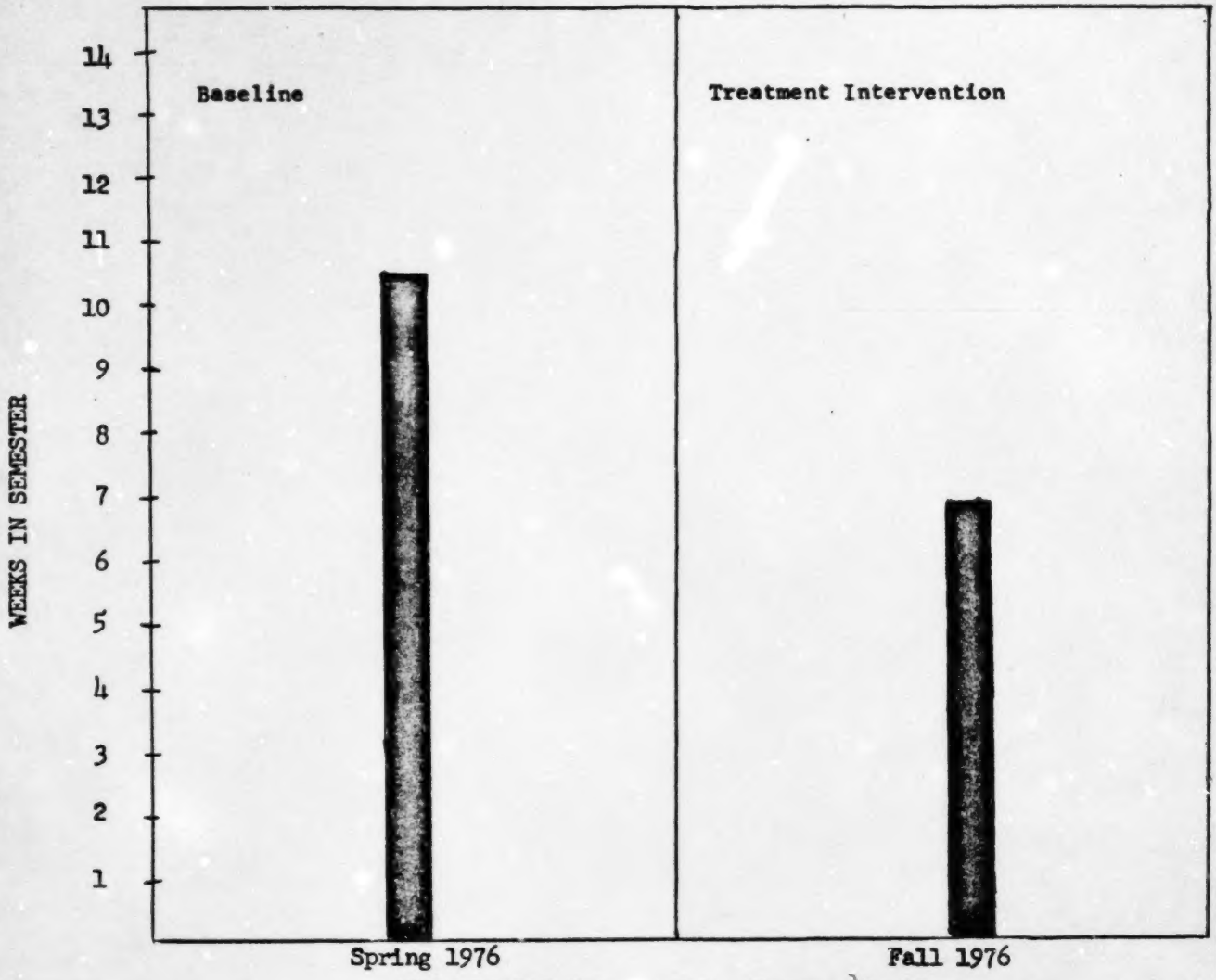

Subject A
Baseline
Intervention I
Subject B
Baseline
Intervention II
Subject C
Baseline
Intervention III
EVALUATION BEHAVIORS OBSERVED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
* * * *
* - Reliability Check
CLASS SESSIONS

Figure 1



Time needed for complete class evaluation

Figure 2